

# CERTIFICATION of DELIVERY

## CONSUMER CONFIDENCE REPORT

*For Calendar year*      2011

**Public Water System(PWS) Name :** CITY OF RICHWOOD

**PWS ID Number :** TX0200035

I certify that the community water system named above has distributed the Consumer Confidence Report (CCR) for the calendar year of 2011 by mail or direct delivery to bill-paying customers. I certify that the above system has additionally made an adequate good faith effort to reach non-bill-paying consumers by the appropriate methods indicated below. I certify that the report has been made available to non-English-speaking customers. Further, I certify that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to

**Date of Delivery:** \_\_\_\_\_

**Certified By:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Check all items that apply.** You must select at least one direct delivery method.

- \_\_\_\_\_ Our CCR was distributed by mail or other direct delivery (such as door hangers)
- \_\_\_\_\_ Other methods. Please specify: \_\_\_\_\_

**Check all items that apply.** Use at least one good-faith method to reach people who do not receive bills.

- \_\_\_\_\_ Good Faith efforts were used to reach non-bill paying consumers. These efforts included the (check the method(s) that you used):
- \_\_\_\_\_ Posting the CCR on the internet at <http://> \_\_\_\_\_
- \_\_\_\_\_ Mailing the CCR to people who receive mail in the service area, but who do not receive bills.
- \_\_\_\_\_ Advertising the CCR in news media
- \_\_\_\_\_ Publishing the CCR in a local newspaper
- \_\_\_\_\_ Posting the CCR in public places
- \_\_\_\_\_ Delivering multiple copies of the CCR to single billing addresses which serve multiple persons
- \_\_\_\_\_ Delivering multiple copies of the CCR to community organizations

Systems serving more than 100,000 persons must also post the CCR on a publicly available web site. Any system that posted the CCR on the internet should provide the URL here: <http://> \_\_\_\_\_

**Please return this form via postal mail with a postmark stamp no later than July 1<sup>st</sup>.** TCEQ recommends the use of certified mail. Please submit this completed form and a copy of the consumer confidence report you delivered to your customers to:

**Texas Commission on Environmental Quality**  
**PDWS – Mail Code 155, Attn: CCR**  
**12100 Park 35 Circle**  
**Austin, TX 78753**

Alternate Address: TCEQ/PDW, MC-155, Attn: CCR, P.O. Box 13087, Austin TX 78711-3087

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# 2011 Annual Drinking Water Quality Report

## Consumer Confidence Report (CCR)

PWS ID Number: TX0200035

PWS Name: CITY OF RICHWOOD

### Special Notice

#### Required Language for ALL Community Public Water Systems

Annual Water Quality Report for the  
period of January 1 to December 31, 2011

This report is intended to provide you  
with important information about your  
drinking water and the efforts made by  
the water system to provide safe drinking  
water.

Drinking water, including bottled water,  
may reasonably be expected to contain at  
least small amounts of some contaminants.  
The presence of contaminants does not  
necessarily indicate that water poses a  
health risk. More information about  
contaminants and potential health effects  
can be obtained by calling the EPAs Safe  
Drinking Water Hotline at (800) 426-4791.

For more information regarding this  
report contact:

Name \_\_\_\_\_

Phone \_\_\_\_\_

Este informe contiene información muy  
importante sobre el agua que usted bebe.  
Tradúzcalo ó hable con alguien que lo  
entienda bien.

The source of drinking water used by  
CITY OF RICHWOOD is Purchased Surface  
Water

#### Information on Sources of Water:

The sources of drinking water (both tap water  
and bottled water) include rivers, lakes,  
streams, ponds, reservoirs, springs, and  
wells. As water travels over the surface of  
the land or through the ground, it dissolves  
naturally-occurring minerals and, in some  
cases, radioactive material, and can pickup  
substances resulting from the presence of  
Contaminants that may be present in source

- Microbial contaminants, such as viruses  
and bacteria, which may come from sewage  
treatment plants, septic systems,  
agricultural livestock operations, and
- Inorganic contaminants, such as salts and  
metals, which can be naturally-occurring or  
result from urban storm water runoff,  
industrial or domestic wastewater discharges,  
oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come  
from a variety of sources such as  
agriculture, urban storm water runoff, and
- Organic chemical contaminants, including  
synthetic and volatile organic chemicals,  
which are by-products of industrial processes  
and petroleum production, and can also come  
from gas stations, urban storm water runoff,  
and septic systems.
- Radioactive contaminants, which can be  
naturally-occurring or be the result of oil  
and gas production and mining activities.

Immuno-compromised persons such as persons  
with cancer undergoing chemotherapy, persons  
who have undergone organ transplants, people  
with HIV/AIDS or other immune system  
disorders, some elderly and infants can be  
particularly at risk from infections. These  
people should seek advice about drinking water  
from their health care providers. EPA/CDC  
guidelines on appropriate means to lessen the  
risk of infection by Cryptosporidium and other  
microbial contaminants are available from the  
Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause  
serious health problems, especially for  
pregnant women and young children. Lead in  
drinking water is primarily from materials and  
components associated with service lines and  
home plumbing. We cannot control the variety  
of materials used in plumbing components. When  
your water has been sitting for several hours,  
you can minimize the potential for lead  
exposure by flushing your tap for 30 seconds  
to 2 minutes before using water for drinking  
or cooking. If you are concerned about lead in  
your water, you may wish to have your water  
tested. Information on lead in drinking water,  
testing methods, and steps you can take to  
minimize exposure is available from the Safe  
Drinking Water Hotline or at  
<http://www.epa.gov/safewater/lead>.

#### Information about Secondary Contaminants

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

## Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water sources(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:  
<http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Furthder details about sources and sourcewater assessments are available in Drinking Water Watch at the following URL:  
<http://dww.tceq.texas.gov/DWW/>

**Water Quality Test Results**

Maximum Contaminant Level Goal or	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level or MCL:	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum residual disinfectant level goal or MRDLG:	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Maximum residual disinfectant level	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
na:	not applicable.
Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.

## 2011 Regulated Contaminants Detected

### Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1 samples were positive		0	N	Naturally present in the environment.

### Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	07/13/2010	1.3	1.3	0.395	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/13/2010	0	15	3.61	2	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

## Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2010	17	14.8 - 18.2	No goal for the total	60	ppb	N	By-product of drinking water chlorination.

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

Total Trihalomethanes (TThm)*	2010	17	16.2 - 16.9	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
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Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2010	Levels lower than detect level	0 - 0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic	2010	Levels lower than detect level	0 - 0	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2010	0.235	0.235 - 0.235	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	2010	Levels lower than detect level	0 - 0	4	4	ppb	N	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense
Cadmium	2010	Levels lower than detect level	0 - 0	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries
Chromium	2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2010	0.67	0.67 - 0.67	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum

Mercury	2010	Levels lower than detect level	0 - 0	2	2	ppb	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Nitrate [measured as Nitrogen]	2010	1	0.11 - 0.69	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate Advisory - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Nitrite [measured as Nitrogen]	06/15/2006	Levels lower than detect level	0 - 0	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2010	Levels lower than detect level	0 - 0	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	2010	Levels lower than detect level	0 - 0	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	05/06/2009	Levels lower than detect level	0 - 0	0	4	mrem/yr	N	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	05/06/2009	Levels lower than detect level	0 - 0	0	15	pCi/L	N	Erosion of natural deposits.
Synthetic organic contaminants including pesticides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2,4,5-TP (Silvex)	2010	Levels lower than detect level	0 - 0	50	50	ppb	N	Residue of banned herbicide.
2,4-D	2010	Levels lower than detect level	0 - 0	70	70	ppb	N	Runoff from herbicide used on row crops.
Alachlor	2010	Levels lower than detect level	0 - 0	0	2	ppb	N	Runoff from herbicide used on row crops.



Atrazine	2010	0.21	0 - 0.21	3	3	ppb	N	Runoff from herbicide used on row crops.
Benzo(a)pyrene	2010	Levels lower than detect level	0 - 0	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2010	Levels lower than detect level	0 - 0	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2010	Levels lower than detect level	0 - 0	0	2	ppb	N	Residue of banned termiticide.
Dalapon	2010	Levels lower than detect level	0 - 0	200	200	ppb	N	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2010	Levels lower than detect level	0 - 0	400	400	ppb	N	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2010	Levels lower than detect level	0 - 0	0	6	ppb	N	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2010	Levels lower than detect level	0 - 0	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2010	Levels lower than detect level	0 - 0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
Endrin	2010	Levels lower than detect level	0 - 0	2	2	ppb	N	Residue of banned insecticide.
Ethylene dibromide	2010	Levels lower than detect level	0 - 0	0	50	ppt	N	Discharge from petroleum refineries.
Heptachlor	2010	Levels lower than detect level	0 - 0	0	400	ppt	N	Residue of banned termiticide.
Heptachlor epoxide	2010	Levels lower than detect level	0 - 0	0	200	ppt	N	Breakdown of heptachlor.
Hexachlorobenzene	2010	Levels lower than detect level	0 - 0	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.

Hexachlorocyclopentadiene	2010	Levels lower than detect level	0 - 0	50	50	ppb	N	Discharge from chemical factories.
Lindane	2010	Levels lower than detect level	0 - 0	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor	2010	Levels lower than detect level	0 - 0	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl [Vydate]	2010	Levels lower than detect level	0 - 0	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
Pentachlorophenol	2010	Levels lower than detect level	0 - 0	0	1	ppb	N	Discharge from wood preserving factories.
Picloram	2010	Levels lower than detect level	0 - 0	500	500	ppb	N	Herbicide runoff.
Simazine	2010	0.15	0 - 0.15	4	4	ppb	N	Herbicide runoff.
Toxaphene	2010	Levels lower than detect level	0 - 0	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1,1,1-Trichloroethane	01/12/2010	Levels lower than detect level	0 - 0	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
1,1,2-Trichloroethane	01/12/2010	Levels lower than detect level	0 - 0	3	5	ppb	N	Discharge from industrial chemical factories.
1,1-Dichloroethylene	01/12/2010	Levels lower than detect level	0 - 0	7	7	ppb	N	Discharge from industrial chemical factories.
1,2,4-Trichlorobenzene	01/12/2010	Levels lower than detect level	0 - 0	70	70	ppb	N	Discharge from textile-finishing factories.
1,2-Dichloroethane	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.

1,2-Dichloropropane	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
Benzene	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from factories; Leaching from gas storage tanks and landfills.
Carbon Tetrachloride	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene	01/12/2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
Dichloromethane	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	01/12/2010	Levels lower than detect level	0 - 0	700	700	ppb	N	Discharge from petroleum refineries.
Styrene	01/12/2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills.
Tetrachloroethylene	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from factories and dry cleaners.
Toluene	01/12/2010	Levels lower than detect level	0 - 0	1	1	ppm	N	Discharge from petroleum factories.
Trichloroethylene	01/12/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2010	Levels lower than detect level	0 - 0	0	2	ppb	N	Leaching from PVC piping; Discharge from plastics factories.
Xylenes	01/12/2010	Levels lower than detect level	0 - 0	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.
cis-1,2-Dichloroethylene	01/12/2010	Levels lower than detect level	0 - 0	70	70	ppb	N	Discharge from industrial chemical factories.
o-Dichlorobenzene	01/12/2010	Levels lower than detect level	0 - 0	600	600	ppb	N	Discharge from industrial chemical factories.

p-Dichlorobenzene	01/12/2010	Levels lower than detect level	0 - 0	75	75	ppb	N	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene	01/12/2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from industrial chemical factories.